

## ABSTRACT:

The invention relates to a speech recognition system and a method of calculating iteration values for free parameters  $\lambda\alpha$  of the maximum entropy speech model. In the state of the art it is known that these free parameters  $\lambda\alpha$  can be approximated cyclically and iteratively, for example, using a GIS training algorithm. Cyclically in this case is understood to mean that for each iteration step  $n$  a cyclically predefined attribute group  $A_i(n)$  of the speech model is evaluated in order to calculate the  $n+1$  iteration value for the free parameters. An attribute group  $A_i(n)$  with such a rigid cyclical assignment is not always the best solution, however, for ensuring the fastest and most effective convergence of the GIS training algorithm in a given situation. Therefore, a method is proposed in the context of this invention, which will assist at choosing the attribute group that is the most suitable in this respect, while the degree of adaptation of iteration boundary values  $m_\alpha^{(n)}$  to respective associated and desired boundary values  $m_\alpha$  for all attributes of the relevant attribute group serves as a criterion for choosing the attribute group.

Fig. 1.